

REMARKS/ARGUMENTS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

Applicant previously submitted a “Declaration Under 37 CFR 1.131 Establishing Prior Invention.” The Examiner states that the declaration was insufficient to establish reduction to practice prior to the date of the Benner et al reference, state that “The submitted drawing does not sufficiently establish that the housing is made of a polymer, coated with an electrically conductive material, or is shielding from electromagnetic interference.” Although the Examiner has withdrawn the rejection, making this issue moot, the following is submitted for the record. The Examiner is respectfully reminded that “An accompanying exhibit need not support all claimed limitations, provided that any missing limitation is supported by the declaration itself. Ex parte Ovshinsky, 10 USPQ2d 1075 (Bd. Pat. App. & Inter. 1989).” See MPEP 715.07. Applicant respectfully submits that the declaration provides clear support for these limitations, stating that “at the time the drawing was prepared, my invention included the housing being made of a polymer based material and the plurality of surfaces being coated with an electrically conductive material and/or a material that provides shielding from electromagnetic interference.”

Turning to the present rejections, claims 1 and 4 were rejected under 35 U.S.C. 103(a) over U.S. Patent No. 6,582,132 to Farnsworth et al. in view of U.S. Patent No. 5,470,165 to Bissinger. Claim 1 has been amended to better distinguish from the prior art. For the following reasons, the rejection is now moot.

Specifically, claim 1 has been amended to require that the connector receiving housing

is made of a polymer based material. As will be explained below, there is no motivation or suggestion in the prior art of record to apply the teachings of Bissinger to a polymer based structure, such as is now required by claim 1.

Applicant previously asserted that there was insufficient motivation to modify Farnsworth to include the teachings of Bissinger. In response, the Examiner cites several passages from Bissinger as providing the proper motivation. Applicant respectfully submits the following comments in regard to each of these citations:

a) Bissinger teaches the details of a retaining ring “. . . providing high retaining forces which can also be produced at relatively low cost economically.” Thus, a cost advantage is obtained by Bissinger, based upon the method by which the retaining ring is manufactured. Bissinger explains: “To this end, the retaining ring of the present invention has a series of *projections* distributed about its periphery *which are raised from the sheet material in the radial direction by deep drawing and then are stamped out to the desired width* along a line passing around the circumference of the retaining bushing.” The techniques of deep drawing and stamping apply solely to sheet metal, and not to the synthetic resin or plastic material of which the connector housing (22) of Farnsworth is made (see Fig. 2, in which the cross-hatching for a synthetic resin or plastic material is used). Likewise, the high retaining forces achieved by the sheet metal projections of Bissinger would not be expected to apply to the plastic connector housing (22) of Farnsworth, even if comparable protrusions could be produced. Thus, one of ordinary skill in the art would not consider the above-cited benefit of Bissinger when seeking to modify to Farnsworth, since it would reasonably be expected to be successfully achieved.

b) Bissinger explains that “. . . by this configuration the outer boundaries of the retaining projections are solid and are integrally connected to the material of the bushing without

separation.” Again, this advantage relates to the above-mentioned manufacturing techniques used to produce the retaining bushing (3) of Bissinger. As explained above, these techniques do not apply to the plastic connector housing (22) of Farnsworth. Moreover, even if a projection (7) from Bissinger were applied to Farnsworth to replace the latch hook (38) of Farnsworth, the projection (7) would not be “integrally connected” to the connector housing “without separation” as in Bissinger. In particular, in order for the latch hook (38) to engage edge (20) of an opening of a panel, the latch hook (38) is provided on a flexible latch arm (36) allowing it to move inwardly. Thus, in order for the connector (12) to continue operate as taught by Farnsworth, the retaining projection (7) of Bissinger would have to be provided on the latch arm (36) of Farnsworth, which is *separated* from the connector housing (22) in direct contradiction of the above-stated advantage.

c) Bissinger teaches that the stretching and deep-drawing process, already mentioned above, is performed on the material of the bearing bushing “. . . so that an arched, knuckle-like shape is produced. The resultant shape produced by the forming means yields a retaining bushing characterized by extremely high strength, dimensional stability, and immunity to damage even when very thin sheet material is used to form the retaining bushing.” The cited advantage relates to the concept that, by using the techniques described, a suitable bearing can be produced *even when very thin sheet material is used*. For similar reasons to those described above in regard to motivation (a), one of ordinary skill in the art would not expect to successfully apply these teachings to a plastic connector housing, such as the one taught in Farnsworth. Again, the cited advantages are specific to a retaining bushing made from a sheet of metal and are therefore do not suggest modifying Farnsworth.

d) Bissinger further teaches that “there are no sharp edges or corners which may cause

damage to the bearing particularly to the seating surfaces when assembled.” Applicant respectfully submits that this would not provide any motivation for modifying the connector housing of Farnsworth, since there is no bearing to damage. Further, the issue of sharp edges appears to address issues specific to sheet metal. There is no indication in that there are any sharp edges present on the latch hook (38) of Farnsworth that would cause a problem.

e) Finally, the Examiner points out that in Bissinger, “the retaining projections are designed in such a way that they slope down continuously in the axial direction, decreasing from the highest radial point above the lateral surface in the area of the stamping line until they reach the level of the lateral surface. By this arrangement, optimum support is provided for the retaining forces acting on the end surface of the stamped area. Accordingly, on insertion into a bearing bore, the backs of the retaining projections serve advantageously as a guide ramp.” Applicant respectfully submits that, much like the projections of Bissinger, the chamfered surface (40) of the latch hook (38) of Farnsworth slopes down continuously so that it serves as a guide ramp. Since this advantage, as recognized by Bissinger, appears to already be present in the design taught by Farnsworth, it would not provide any motivation for one of ordinary skill in the art to make the proposed modification.

In summary, although several advantages described by the Bissinger reference are cited by the Examiner, none provide the requisite suggestion or motivation for forming a *prima facie* case of obviousness to support a rejection based on a combination of the teachings of Farnsworth and Bissinger. Thus, claims 1 and 4 are patentable over the prior art of record.

Claims 5, 8, 9, 10, 12, 15, 16 and 18-20 have been rejected under 35 U.S.C. 103(a) over Farnsworth in view of U.S. Patent No. 5,879,173 to Poplawski et al. Claims 5, 8, 12 and 18 have been amended to require the *parabolic* protrusion, as in claim 1 discussed above. The

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rejection has therefore been rendered moot with regard to claims 5, 8, 12, 15, 16 and 18-20. It is respectfully submitted that claims 9 and 10 depend from claim 1 and therefore already contained this limitation. Thus, the rejection also does not apply to claims 9 and 10. Due to the amendment of claims 5, 8, 12 and 18, and for the same reasons set forth above with regard to claim 1, the rejected claims 5, 8, 9, 10, 12, 15, 16 and 18-20 are also patentable over the prior art of record.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. 33778.

Respectfully submitted,

PEARNE & GORDON LLP

By:



Aaron A. Fishman, Reg. No. 44682

1801 East 9th Street
Suite 1200
Cleveland, Ohio 44114-3108
(216) 579-1700

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